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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/799,605

03/15/2004

Soo-Sang Yang

1594.1353

8255

21171 7590 01/15/2008  
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EXAMINER

ARCE DIAZ, MARLON A

ART UNIT

PAPER NUMBER

3611

MAIL DATE

DELIVERY MODE

01/15/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/799,605

Applicant(s)

YANG ET AL.

Examiner

Marlon A. Arce-Diaz

Art Unit

3611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,15 and 17 is/are rejected.
- 7) ☒ Claim(s) 3,7-14,16 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/12/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2,17, are rejected under 35 U.S.C. 102(b) as being anticipated by Lauber (US 4266627). Lauber discloses a wheel suspension for a stepping vehicle comprising: a body (20,24), a wheel (3) configured to move in a rotating direction and in a up and down direction, a wheel guide (21,2,4) connected to the body on one side and connected to the wheel hub on the other side. Examiner likes to point out that the wheel unit mentioned by Lauber includes a hydraulic cylinder (5), said hydraulic cylinder when not completely contracted {{without allowing the body to come in contact with the driving surface}} allows the body to remain apart from the surface, and if the surface becomes uneven {{when the body reaches/touches uneven ground}}, it expands to allows more separation from the ground. Regarding claim 2, Lauber further discloses a drive motor (Col 5, line 5-10) that drives the vehicle.

3. Claims 1,2,4-6,15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Davis (US 5515934). Davis discloses a mobile robot body comprising: a body (fig 1), a wheel (86,82) attached to the body through a wheel guide unit (26,28); said wheel guide unit when fully contracted (fig 8) allows the body to have the farthest distance from the surface and when expanding, in order to climb steps, allows the body

to first contact the surface (fig 9 A-B) and then the wheel to contact the step surface (9C) {{pointing out the fact that the wheels contract to raise the body and extend to allow the body to climb stairs}}. Regarding claim 2, Davis further discloses a motor (90) and a gearbox (88). Regarding claim 4, Davis further discloses the guide slot going through axis (A, fig 5B) and the guide unit includes an insert shaft (58) that inserts in the guide slot. Regarding claim 5, Davis mentions in Col 6, lines 22-27, that the coil (41) can be replaced by a slip rings {{which in this case can be seen as a power spring}}; said coil/slip rings are connected to the wheel guide unit through insert shaft (58). Regarding claim 6, the body as seen in figure 2 includes a lower end and a surface (22) being inclined from the lower end.

#### ***Allowable Subject Matter***

4. Claims 3,7-14,16 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chun (US 726176). Chun discloses an articulated vehicle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marlon A. Arce-Diaz whose telephone number is (571) 272-1341. The examiner can normally be reached on Mon-Fri 8:00 am to 4:30 pm.

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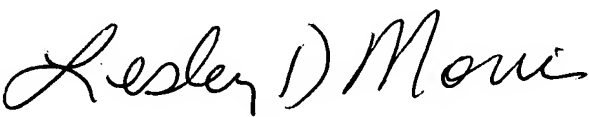
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on (571) 272-6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Marlon Arce-Diaz

1/2/08

MAA

  
**LESLEY D. MORRIS**  
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